



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In re the application of:** Markus Pompejus, *et al.*

**Serial No.:** 09/746,660

**Filed:** December 22, 2000

**For:** *Corynebacterium glutamicum* Genes Encoding  
Metabolic Pathway Proteins

**Attorney Docket No.:** BGI-121CP2

**Group Art Unit:** 1645

**Examiner:** *13/1022*  
*H*

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By: *Giulio A. DeConti, Jr.*

Giulio A. DeConti, Jr., Esq., Reg. No. 31,503

PRELIMINARY AMENDMENT

Dear Sir:

Prior to examination of the above-identified continuation in part application, please amend the application as follows:

In the Specification:

Please delete pages 1-175 of the Sequence Listing and replace them with the Substitute Sequence Listing, pages 1-176, filed herewith.

Please replace the paragraph beginning at page 20, line 2, with the following rewritten paragraph:

*H*  
The present invention is based, at least in part, on the discovery of novel molecules, referred to herein as MP nucleic acid and protein molecules (see Table 1), which play a role in or

*P.2*  
*P. control*

function in one or more cellular metabolic pathways. In one embodiment, the MP molecules catalyze an enzymatic reaction involving one or more amino acid, *e.g.*, lysine or methionine, vitamin, cofactor, nutraceutical, nucleotide, nucleoside, or trehalose metabolic pathways. In a preferred embodiment, the activity of one or more MP molecules of the present invention, alone or in combination with molecules involved in the same or different metabolic pathway (*e.g.*, methionine or lysine metabolism), in one or more *C. glutamicum* metabolic pathways for amino acids, vitamins, cofactors, nutraceuticals, nucleotides, nucleosides or trehalose has an impact on the production of a desired fine chemical by this organism. In a particularly preferred embodiment, the MP molecules of the invention are modulated in activity, such that the *C. glutamicum* metabolic pathways in which the MP proteins of the invention are involved are modulated in efficiency or output, which either directly or indirectly modulates the production or efficiency of production of a desired fine chemical by *C. glutamicum*. In a preferred embodiment, the fine chemical is an amino acid, *e.g.*, lysine or methionine. In another preferred embodiment, the MP molecules are metZ, met C, and/or RXA00657 (see Table 1).

Please replace the paragraph beginning at page 26, line 18, with the following rewritten paragraph:

*P.2*

--Also listed on Table 1 are the *metZ* (or *metY*) and *metC* genes (designated as SEQ ID NO:1 and SEQ ID NO:3, respectively. The corresponding amino acid sequence encoded by the *metZ* and *metC* genes are designated as SEQ ID NO:2 and SEQ ID NO:4, respectively.

Please replace the paragraph beginning at page 79, line 19, with the following rewritten paragraph:

*P.3*

--Transformation of a bacterial strain such as *Corynebacterium glutamicum* strain (ATCC 13286) was performed with a plasmid pB containing the aforementioned DNA regions of